

# **Contents**





- 3 What is the Consumer Confidence Report?
- 5 Regulations & Definitions
- 6 Water Quality Data
- 8 Items of Interest
- 9 Message from the Superintendent
- 10 Welcome our NEW Water Plant Manager
- 11 Engineering Excellence Water Reclamation
- 12 Making Sewered Water Safe for Discharge
- 14 The 500-Year Flood Event
- 17 How we solved F.O.G.
- 18 People Say the Water is Hard
- 20 Making Waves Asset Management
- 21 Billings earns LEED Gold for Cities



# City of Billings 2022 Annual Drinking Water Quality Report

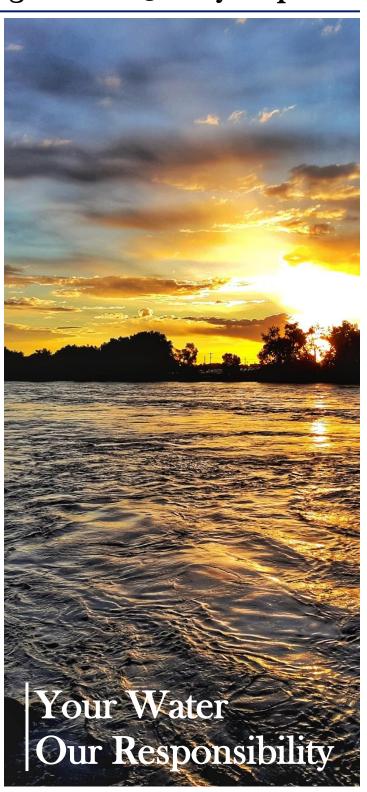
# What is this Report?

The City of Billings Water Quality
Division is pleased to provide you
with our 2022 Annual Drinking Water
Quality Report.

We want to keep you informed about the excellent water and service we have delivered to you over the past year. Our goal is and always has been, to provide to you a superior and dependable supply of drinking water. We continually monitor our finished (tap) water to ensure it has no regulated contaminant at a level considered to be a health issue by either EPA or the Montana Department of Environmental Quality. Your water meets or exceeds the requirements of the Federal Safe Drinking Water Act.

# All of the water we provide to you comes from the Yellowstone River.

A study of the susceptibility of the Yellowstone River to contamination has been conducted. The analysis showed that our source water's susceptibility to contamination is low. The Source Water Protection plan is available through the Billings Public Works, Environmental Affairs Division, (406) 247-8517 or on the State of Montana Department of Environmental Quality website at deq.mt.gov/water/Programs/dw



# SPECIAL NOTE TO OWNERS/MANAGERS OF ASSOCIATIONS AND/OR INCOME PROPERTIES

To ensure the City of Billings 2022 Annual Drinking Water Quality Report reaches <u>ALL</u> consumers, please post for residents.

# **Special Population Advisory**

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immunocompromised persons such as people with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the EPA Safe Drinking Water Hotline (800) 426-4791.



epa.gov/ground-water-and-drinking-water/safe-drinking-water hotline

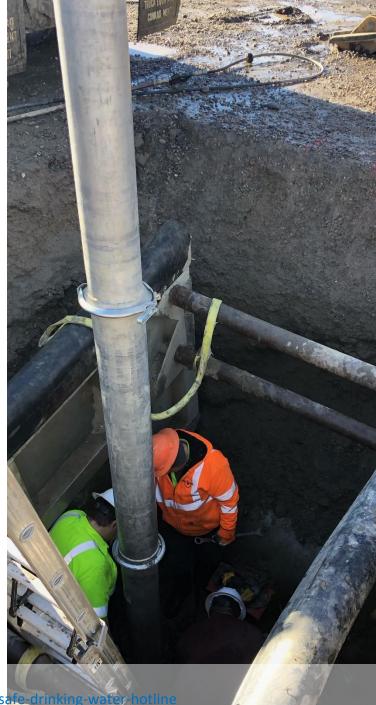
### **EPA National Primary Drinking Water Regulations**

epa.gov/sites/production/files/2016-06/documents/npwdr\_complete\_table.pdf

### Where Can I Get More Information?

Water Quality Laboratory at (406) 657-8346

Montana Dept. of Environmental Quality (MDEQ) – Public Water Supply Bureau (406) 444-4400 Group tours of the water treatment plant are available upon request at billingsmtpublicworks.gov



# **Environmental Protection Agency (EPA) Regulations**

The City of Billings Water Quality Division routinely monitors for contaminants in your drinking water according to Federal and State regulations. The following tables show the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2022. (Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year.)

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. The presence of contaminants does not necessarily indicate that water poses a health risk.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

# Long Term 2 - Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)

From April 2015-March 2017, the City of Billings completed a second round of monitoring for *Cryptosporidium* in the Yellowstone River in accordance with the EPA Long Term 2 Surface Water Treatment Rule (LT2).

Samples were collected monthly for two years; the results from this testing were favorable and the City is not required to add additional treatment processes to meet the requirements of the rule.

# **Water Quality Data Table Definitions**

The tables on the next two pages list all of the drinking water contaminants detected for the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done in the calendar year of the report.

In the following section you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

ppm or mg/l - Parts per million or Milligrams per liter - or one ounce in 7,812 gallons of water.

ppb or μg/l - Parts per billion or Micrograms per liter - or one ounce in 7,812,000 gallons of water.

ND - Not Detected

**NTU** - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**AL - Action Level** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**TT - Treatment Technique** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**Maximum Contaminant Level (MCL)** - The MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Secondary Maximum Contaminant Level (SMCL)** - The SMCL represents reasonable goals for drinking water quality and provide a guideline for public water suppliers. Secondary contaminants affect mainly the aesthetic qualities such as undesirable taste or odors.

**Maximum Residual Disinfectant Level (MRDL)** - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contamination.

**Maximum Residual Disinfectant Level Goal (MRDLG)** - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

WATER QUALITY DATA							
Contaminant	Violation Yes/No	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination	
Microbiological Contaminants							
Total Coliform Bacteria	No	0 positive samples out of 1302 samples collected		5% positive	0	Naturally present in the environment	
Turbidity (NTU)	No	0.063	0.014 - 0.063	TT=95% of samples <0.3	N/A	Soil runoff. Turbidity is a measure of the cloudiness of the water. This is monitored because it is a good indicator of water quality.	
	_	Inorgan	ic Contami	nants			
Arsenic (ppb)	No	7	ND - 7	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	
Distribution System Free Chlorine (ppm)	No	0.80 Compliance is based on a running annual average of all distribution samples collected.	0.08- 1.58	MRDL=4	MRDLG=4	Water additive used to control microbes	
Fluoride (ppm)	No	0.60	0.15 - 0.60	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	
Nitrate - NO₃ (ppm)	No	0.42	ND - 0.42	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Copper (ppm)	No	0.27 = 90th percentile No sites above AL (2020 sampling data)		AL=1.3 Action Level— 90% of samples must be below this level.	1.3	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives	
Lead (ppb)	No	3 = 90th percentile No sites above AL (2020 sampling data)		AL=15 Action Level— 90% of samples must be below this level.	0	Corrosion of household plumbing systems, erosion of natural deposits	
Volatile Organic Contaminants							
Haloacetic Acids (HAA5)(ppb)	No	34	30 - 34	60	N/A	By-product of drinking water chlorination	
Total trihalomethanes (TTHM)(ppb)	No	47	31 - 47	80	N/A	By-product of drinking water chlorination	
Total Organic Carbon (TOC)	No	The percentage of removal was meas month and all reguirements we	ured each emoval	тт	N/A	Naturally present in the environment and has no health effects.	

SECONDARY CONTAMINANTS							
Contaminant	Range Detected*	SMCL	Noticeable Effects at Elevated Levels				
Aluminum (ppb)	ND - 24	50 - 200	Colored Water				
Chloride (ppm)	5.1 - 13.0	250	Salty Taste				
Sulfate (ppm)	15.5 - 77.1	250	Salty Taste				
Total Dissolved Solids (ppm)	94 - 398	500	Hardness; deposits; colored water; staining; salty taste				
pH (s.u.)	7.5 - 8.4	6.5 - 8.5	Low pH: bitter metallic taste; corrosion High pH: slippery feel; soda taste; deposits				
Other Parameters							
Total Hardness (ppm)	60 - 202	None	Spots; Deposits				
Alkalinity (ppm)	39 - 172	None	None				
Potassium (ppm)	1.62 - 5.36	None	None				
Sodium (ppm)	7.9 - 29.0	None	None				
Magnesium (ppm)	4.3 - 17.0	None	None				

\*The concentration of these contaminants varies seasonally with the highest values in the winter and the lowest values during spring run-off. As you can see by the table, our system had no violations. We are proud that your drinking water meets or exceeds all Federal and State requirements.

The goal of the Water Quality Division is to provide to you the best water possible. We work hard to protect your water resources and to treat your drinking water to the highest standards. We want to meet your expectations but cannot identify issues without your help. If you would like more information or have any water quality concerns, please contact the Water Quality Laboratory at (406) 657-8346.



# **Items of Interest**



## **Asbestos**

On July 20, 2021, the Montana Department of Environmental Quality issued an asbestos monitoring waiver to the City of Billings through the year 2028. The City of Billings distribution system contains no asbestos cement pipe. Find the Asbestos Waiver at billingsmtpublicworks.gov/DocumentCenter/

### Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

# Cryptosporidium

Microscopic organism that, if ingested, can cause fever and gastrointestinal symptoms. Cryptosporidium is removed from water through a successful treatment combination of sedimentation and filtration.

### Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Billings Water Quality Facility is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791 or at epa.gov/safewater/lead

To find out if your water service line is comprised of lead or a different material, please go to billingsmtpublicworks.gov/FormCenter/ONLINE-FORMS-5/Service-Line-Inventory-Survey-65

The Service Line Inventory Survey provides directions for testing your line and a form for you to input your findings. This data that you provide on the form will assist the City of Billings in keeping a more comprehensive inventory of privately owned water service lines. This information helps us serve you better by knowing what potential risk factors may or may not exist from your water service line.

The Mission of the City of Billings Water Quality Division is TO BE A TRUSTED STEWARD OF THE COMMUNITY, ENVIRONMENT AND FINANCIAL RESOURCES WE MANAGE BY PROVIDING EFFICIENT, EFFECTIVE, AND RELIABLE WATER AND WASTEWATER UTILITY SERVICES.

# Message from the Superintendent





Safe drinking water is a critical resource for our thriving community. Whether it's for a hospital surgery, fighting a fire, or simply enjoying a cold glass on a hot summer day, we all need confidence that our water is safe. Our businesses, our industry and our families all depend on this vital resource.

Recent events in communities where the water safety is called into question has dire consequences.

That's why I am so proud of the dedicated team of operators, mechanics, electricians, chemists, engineers, programmers and support staff who serve and protect our community with exceptional quality water.

On behalf of the talented staff who work tirelessly to deliver you exceptional quality water, I am proud to present the 2022 Consumer Confidence Report. Knowing that every drop that comes from a City of Billings tap not only meets but exceeds the requirements of the Safe Drinking Water Act is a source of great pride for me and our staff. Please enjoy this vital resource with confidence.

# Louis Engels

Water Quality Superintendent

Brendan Binns started as our new Water Treatment Plant Manager in January 2023! Brendan attended the University of West Florida and graduated with a degree in Molecular Biology. This was a hard-won achievement for Brendan as he had to work his way through college doing several different odd jobs. It was one of these jobs that led him into the water treatment field. While in college, Brendan took a part time job with an aquarium service company cleaning large and lavish aquariums for businesses. The extensive chemistry and biology courses he took in college allowed him a better understanding of the delicate balance between water quality and maintaining the health of many sensitive species of corals and fish that he cared for. Following this interest in water quality eventually led Brendan to a career as a Drinking Water Operator.

After leaving college Brendan attended the Red Rocks Community College, in Lakewood Colorado, to study in their Water Quality Management Program for a year before accepting a position as a Water Reuse Operator for Denver Water Recycling Plant in Denver Colorado.

Desiring to continue his education in water, Brendan began attending a graduate program at the University of Colorado for the Water Engineering & Management Professional Master's Program. Before graduating with his master's degree, Brendan transitioned from Denver to Aurora Water, in Colorado, where he became the Supervisor of the Aurora Water Wemlinger Plant. During his time as the Supervisor at Aurora Water, Brendan managed several major projects including the commissioning of a new chlorine contact basin for improving water quality, the commissioning of a new carbon-dioxide chemical system for alkalinity adjustment and a major filter rehab project to increase the working life of the Wemlinger treatment plant. Brendan also worked closely with treatment operators to improve workers schedules and to support operator training, allowing for the operators to advance though higher-level certification.

Brendan has a real passion for water chemistry and the art of treatment but also enjoys opportunities to get his hands dirty working on mechanical systems. Brendan believes that water treatment is a wonderful career path for him. He hopes to encourage more young people to get involved in the water treatment industry.

# Welcome to the team Brendan







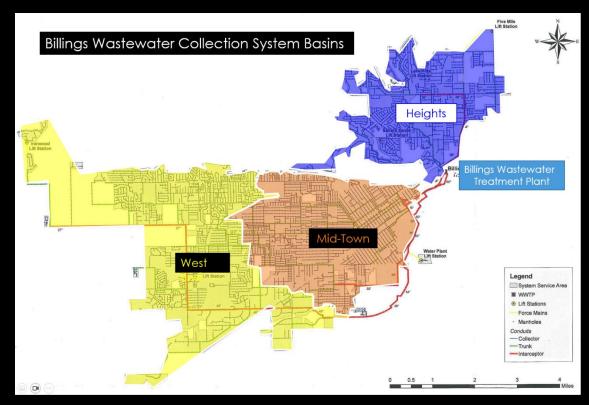
# ACEC (American Council of Engineering Companies) of Montana presented the City of Billings Nutrient Upgrade, Expansion and Improvements project with the 2023 Engineering Excellence Grand Project Award

The HDR team led the design of one of the largest public works projects for Billings. They transformed a \$250 million new secondary treatment facility design into a \$65 million revitalization of the existing facility. HDR increased the wall height of existing secondary clarifiers, allowing them and the existing aeration basins adequate volume for the new treatment process. They also repurposed the main secondary treatment complex tunnel to house blowers, freeing the old blower room for use as chemical storage and feed facilities. This eliminated the need to construct a new chemical building.

The new treatment process uses biology instead of chemicals to remove phosphorus. This is not only environmentally friendlier but avoids the costly use of chemicals and subsequent dewatering and disposal of chemical sludge. Their effort touched nearly every facility at the plant. To harmonize these efforts, they combined LIDAR scanning with building information modeling, which represented the new work in 3D while using the laser scans in the background.

The project not only met the City's requirements but complied with permit requirements for discharging water into the Yellowstone River, a strong fishery and highly utilized recreational river that serves many communities throughout the state.

# Billings Water Reclamation - Protecting Public Health while Recovering Resources & Energy by Making Sewered Water Safe to Discharge into the Yellowstone River



# The City's collection system is huge!

Divided into 3 main sections as shown above, there are 483 miles of sanitary sewer mains and 11 lift stations. This piping system is called "Sanitary Sewer System" because it conveys wastewater from homes, schools, business, etc. The City generates around 20 MGD of wastewater every month. Sometimes makes as much as 40 MGD. While stormwater is collected and discharged directly to the Yellowstone, wastewater gets treated before discharging into the river. Systems that treat both are called "combined sewers". They are difficult to process due to vast swings in flowrate.



A day on the job could go either way! It makes life at the Water Reclamation Facility very exciting 🨉

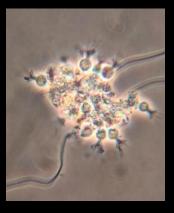
The most important mission we have here at the Water Reclamation Facility is to protect public health by treating the wastewater generated by the city of Billings. Our secondary goal is to recover resources such as Nitrogen, Phosphorus, Biogas in addition to water. Produced through the process are well digested sludge to be dewatered as biosolids which can be used for composting at the landfill later in 2023. A flare is used to burn excess methane used in the wastewater reclamation process.



## How do we do it?

- 1. Separation of settleable, floatable, and suspended solids from incoming sewage
- 2. Incorporation of dissolved solids into bacteriological biomass
- 3. Solids Separation using gravity settling, thickening, and dewatering
- 4. Finally, disposal of the dewatered solids produced

Learn more about the process on our website at www.billingsmtpublicworks.gov/DocumentCenter/View/1084/Water-Reclamation-Facility-Presentation-2023



Workers – the microbes





# What We Learned from that 500-Year Flood

From severe drought in 2021 to major flood in 2022, the same unrestrained Yellowstone River does not shy away from testing what our infrastructure, our team, and our community could withstand. The result? Our talented and dedicated team was able to think on their feet and come up with creative solutions to continue providing quality water to the City. At the same time, our water plant was able to maintain operation at approximately half capacity to meet the City's water needs due to our citizens' compliance to the water conservation request.



River level kept rising and was bypassing the preliminary treatment process. Our team worked tirelessly to adapt to the constantly changing situation and was able to maintain operation and meet our customer's water demand.



Shout out to Philips 66 for offering their equipment to pump water out of the substation so we could return to our main source of power. (Switchyard Flooding)



# Why was it called a 500-year flood?

The "500 year" term is a risk assessment tool used for flood insurance. It does not mean that the event happens only once every 500 years, but instead that there is a one in 500 chance that this amount of flooding will occur in a single year. The "500-year flood" corresponds to an AEP (Annual Exceedance Probability) of 0.2-percent, which means a flood of that size or greater has a 0.2-percent chance (or 1 in 500 chance) of occurring each year. (usgs.gov)

# Shortly after the Flood...

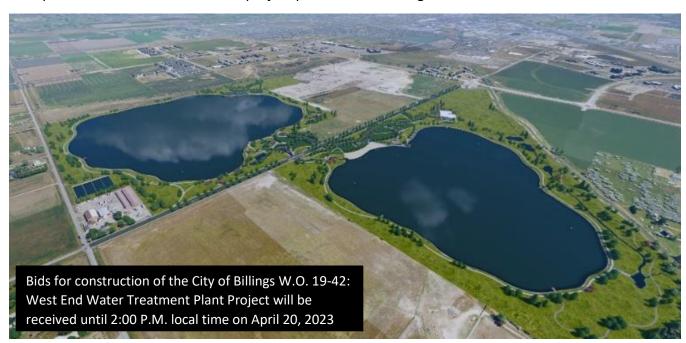
FEMA Administrator Deanne Criswell and U.S. Senator Jon Tester paid a timely visit to the Water Treatment Plant to see the flood's impact firsthand. Our plant staff and all Public Works staff received well deserved recognition for their talent, dedication, and hard work through challenging times. The dire need for the West End Water Reservoirs which would significantly extend Billings water supply was a major part of the discussion as well.





The new West End Water system will give the City the ability to isolate from the Yellowstone River and withstand natural and man-made disasters like drought, flooding, chemical spills, oil pipeline breaks, and ice jams. With a water surface area of 160 acres and a volume of 3,020 acre-ft, the reservoirs will be able to provide 40 days worth of drinking water for the city should a disaster occur. Improvements to our current water plant are also in the works based on lessons learned from this historic flood event.

For updates on the West End Water project please follow Billings Public Works on social media.



# How We Solved F.O.G.

# Why is discharging of F.O.G. a challenge for Billings?

The discharge of <u>Fats</u>, <u>Oils</u>, and <u>Grease typically referred to as F.O.G. has been an ongoing challenge for the City of Billings' collection system and wastewater treatment plant operations. F.O.G. can build up in the sewer mains and laterals causing blockages and sometimes sanitary sewer overflows (SSO), where the wastewater discharges onto the street. When a blockage occurs, a quick response from the Billings Public Works Distribution and Collection Division is required to minimize potential property damage. To unclog a pipeline, our crews use a sewer jet and vac truck as well as a significant number of manhours.</u>

### How is the City solving the F.O.G. problem?

In 2022, the Montana DEQ Solid Waste Program approved a request from the City of Billings to dispose F.O.G. at the landfill. Since August local pumpers have been hauling F.O.G., primarily collected from restaurant grease traps and interceptors, to earth lined evaporation ponds at the landfill. Within a month, the operators at the water reclamation facility (wastewater plant) noticed improvements with the wastewater quality and reduction of energy demand. Local pumpers can now discharge F.O.G. five days a week with no volume restrictions, and the landfill had already received over 650 tons of F.O.G. as of January 1, 2023. Prior to August of 2022, discharge of F.O.G at the wastewater plant required advance notice and the plant had to limit F.O.G. to 3 days per week at 6,000 gallons per day.

### What's improved since the new approach to F.O.G.?

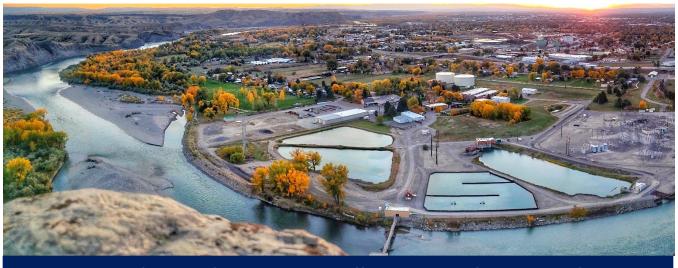
The City is now stepping up inspections and compliance with the food services industry. With help from Riverstone Health, the City began sending electronic surveys to businesses this year. Billings and surrounding area have over 500 food service establishments from restaurants, schools, and nursing/assisted living businesses.





There are two types of grease in the food services world yellow and brown grease. Yellow grease is typically generated from fryers and is recycled into various consumer products including biofuels. Unlike the yellow grease, brown grease is a mix of water, soaps, cleaning chemicals, and solids which have limited and expensive recycling opportunities, therefore, the brown grease is what gets hauled to the landfill.

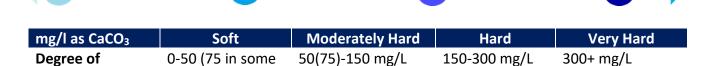




# People Say the Water in Billings is Hard. Is it true?

People often contact us inquiring about the "hardness" of our drinking water. Water hardness is an old measure of water quality that indicated how much soap would be required to make suds and, the potential for water to form scale deposits in hot water piping, boilers, and heaters. Hardness reflects the amount of minerals, principally calcium and magnesium, dissolved in the water. The hardness of Billings' water varies significantly from season to season during the year. Today, hardness is typically measured in terms of milligrams per liter as calcium carbonate (mg/l as CaCO<sub>3</sub>). The following table gives you an idea of what the various concentrations mean:

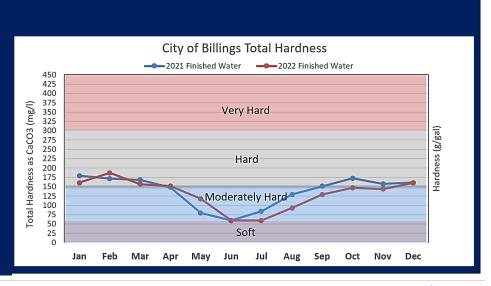
# **Drinking Water Hardness Scale**



As you can see by looking at the following graph of average monthly values 2021, our drinking water is in the range considered moderately hard most of the year. Spring and early summer, depending on snowmelt, can reduce water hardness into the range considered soft; hardness rises into the range considered hard for a time during midwinter.

references) mg/L

**Hardness** 





# "MODERATELY HARD WATER ALSO HAS SOME

**ADVANTAGES...**"

Moderately hard water also has some advantages. Most people prefer the taste of moderately hard water compared to either soft water or water considered very hard. Consumption of moderately hard water may provide some health benefits. Numerous studies since the 1960's have found higher cardiovascular disease rates in populations living in areas with soft water compared to those living in hard water areas. Theories about the source of this relationship have been proposed, but no specific cause and effect has yet been definitively established. Hard water is also less likely to be corrosive potentially extending the life of metal piping and reducing the potential for lead contamination from lead piping and joint solder in old homes.

Many people inquire about the need for water softeners. Use of these devices is a personal choice. If you choose to install a water softener, we suggest that you only soften the hot water system in your home. This type of installation gains some of the benefits people like about soft water while avoiding the ingestion of the additional sodium that ion exchange water softeners add to the water as the calcium and magnesium is removed. A system installed on the hot water system will also consume less salt and reduce ongoing maintenance expense.



The City of Billings Public Works Department (PWD) strives to achieve our vision of being a leader in managing assets and delivering service focused on **excellence**, **innovation**, and **integrity**.

# Making Waves – Asset Management

The SAMP development process has provided a roadmap over several years that includes thirty initiatives, many of which are focused on the water and sewer utility function of the Department. Over the past year, data improvements have been made to the GIS information describing our water and sewer infrastructure assets. This work will enable upgrades to the Computerized Maintenance Management System (CMMS) and processes. Benefits include increased productivity for operations and maintenance staff, consistent and predictable collection of standardized data for analysis, and centralized storage of the data records. This will result in greater efficiency and enhanced data-driven decision-making regarding lifecycle management of water and sewer assets and overall needs assessment to support our community.

# **Water Utility**

Water Main

- Distribution
- Transmission

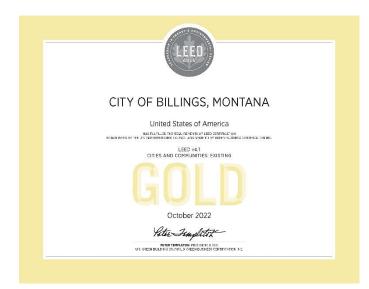
# **Sewer Utility**

Sewer Gravity Main

- → Interior Mains 12" and Less
- → Local Mains >12" and < 36"

When it comes to data driven decision making, live and accurate data collection is crucial. To get there, Public Works teamed up with the IT team to develop a powerful Geographic Information System – GIS for not just Public Works but all departments in the City of Billings. The GIS Team worked closely with Public Works for more than 20 years, building base maps and hundreds of asset management layers.

Above screenshot is an example of the Water & Sewer Utility layers.



"WHAAAAAT?" has been a typical response when people hear that Billings is now among the 21 Cities & Communities GLOBALLY to achieve LEED® Gold recognition. We don't blame anyone for being surprised. It's one of those situations where we don't realize how lucky we are to call Billings home till someone else points it out! For that we have our Energy & Conservation Commission to thank.

# City of Billings LEED-ing the Way for the Region

Though some of the Commission members couldn't make photo day, you can learn about the Commission's phenomenal efforts for the last two years and some of the projects that scored Billings the points for progress toward

Sustainability and Quality of Life! It is also a promise to uphold LEED standards to benchmark performance and communicate improvements moving forward!



More on the Energy & Conservation Commission's great work at www.billingsmtpublicworks.gov/237/Boards-Commissions

# Winning at Sustainability for Water Efficiency

The LEED Gold accomplishment measures and tracks outcomes and is evaluated against key metrics that include energy, water, waste, transportation, education, health, safety, prosperity, and equitability. It takes a lot of electricity to treat and move water. About 70% of the electricity consumed by our municipal facilities comes from either the water or wastewater system. This is why we have focused on **state-of-the-art efficiency technologies** at both the water and wastewater treatment plant. Among other efficiency projects, the City was **awarded \$90,000** in utility energy efficiency rebates for low energy wastewater technologies that will **save \$57,300** in annual electric costs. The water rate structure also incentivizes citizens to be smart about conserving water by increasing the cost per gallon as their use increases.

